### **Comparisons of Job Characteristics**

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011) Associated Occupation: Civil Engineering Technicians (17-3022)

Compare Knowledge Compare Skills Compare Abilities Compare Detailed Work Activities Compare Tools and Technologies

### Knowledge

Similarity of Focus Occupation to Associated Occupation: 66

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011)
Associated Occupation: Civil Engineering Technicians (17-3022)

| Associated Occupation's<br>Key Knowledge Elements | Average<br>Rating, All<br>Occupations | Associated<br>Occupation's<br>Rating | Focus<br>Occupation's<br>Rating |    | Evaluation of Focus Occupation                      |  |
|---|---------------------------------------|--------------------------------------|---------------------------------|----|---|--|
| Engineering and Technology                        | 5.7                                   | 15.6                                 | 10.6                            | << | Extensive education and/or training may be required |  |
| Building and Construction                         | 4.0                                   | 15.1                                 | 16.9                            | >  | Current knowledge level is likely sufficient        |  |
| Mathematics                                       | 9.2                                   | 15.0                                 | 12.8                            | <  | Expanded education and/or training may be required  |  |
| Design  | 5.2                                   | 14.1                                 | 10.9                            | << | Extensive education and/or training may be required |  |
| Public Safety and Security                        | 6.9                                   | 10.6                                 | 10.2                            | 0  | Current knowledge level may be sufficient           |  |
| Geography   | 3.9                                   | 9.0                                  | 3.7                             | << | Extensive education and/or training may be required |  |
| Transportation                                    | 4.6                                   | 8.6                                  | 5.6                             | << | Extensive education and/or training may be required |  |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

#### **Skills**

Similarity of Focus Occupation to Associated Occupation: 75

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011)
Associated Occupation: Civil Engineering Technicians (17-3022)

| Associated Occupation's<br>Key Skills Elements | Average<br>Rating, All<br>Occupations |      | Focus<br>Occupation's<br>Rating | Evaluation of Focus Occupation |  |
|--|---------------------------------------|------|---------------------------------|--------------------------------|--|
| Reading Comprehension                          | 10.7                                  | 12.9 | 10.8                            | <                              | A higher skill level may be required                         |
| Mathematics                                    | 6.2                                   | 8.7  | 6.4                             | <<                             | Extensive development of skills in this area may be required |
| Operations Analysis                            | 5.0                                   | 7.9  | 7.6                             | 0                              | Current skill level may be sufficient                        |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

#### **Abilities**

#### Similarity of Focus Occupation to Associated Occupation: 93

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011) Associated Occupation: Civil Engineering Technicians (17-3022)

| Associated Occupation's<br>Key Abilities Elements | Average<br>Rating, All<br>Occupations | Associated<br>Occupation's<br>Rating | Focus<br>Occupation's<br>Rating | Evaluation of Focus Occupation |  |
|---|---------------------------------------|--------------------------------------|---------------------------------|--------------------------------|--|
| Oral Comprehension                                | 12.5                                  | 12.8                                 | 13.4                            | 0                              | Current ability level may be sufficient            |
| Near Vision                                       | 11.1                                  | 12.6                                 | 11.0                            | <                              | Some improvement in abilities may be required      |
| Oral Expression                                   | 12.4                                  | 12.2                                 | 13.3                            | 0                              | Current ability level may be sufficient            |
| Deductive Reasoning                               | 10.6                                  | 11.4                                 | 11.2                            | 0                              | Current ability level may be sufficient            |
| Visualization                                     | 7.5                                   | 11.4                                 | 9.8                             | <                              | Some improvement in abilities may be required      |
| Written Comprehension                             | 11.0                                  | 11.4                                 | 10.7                            | 0                              | Current ability level may be sufficient            |
| Written Expression                                | 9.8                                   | 11.4                                 | 10.6                            | 0                              | Current ability level may be sufficient            |
| Problem Sensitivity                               | 11.1                                  | 10.8                                 | 12.1                            | >                              | Current ability level is likely sufficient         |
| Mathematical Reasoning                            | 6.3                                   | 10.3                                 | 6.9                             | <<                             | Extensive improvement in abilities may be required |
| Number Facility                                   | 6.3                                   | 9.2                                  | 8.2                             | <                              | Some improvement in abilities may be required      |
| Memorization                                      | 5.6                                   | 6.9                                  | 5.5                             | <                              | Some improvement in abilities may be required      |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## **Activities that Both Occupations Have in Common**

Similarity of Focus
Occupation to Associated
Occupation: 64

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011) Associated Occupation: Civil Engineering Technicians (17-3022)

| Work Activities   | Exclusivity of Activity |
|---|-------------------------|
| Inspect project operations, or site to determine specification compliance | 72                      |
| Prepare safety reports  | 60                      |
| Read blueprints   | 10                      |
| Read technical drawings   | 7                       |
| Understand construction specifications                                    | 53                      |

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

# **Tools and Technologies that Both Occupations Have in Common**

Similarity of Focus
Occupation to Associated
Occupation: 67

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011)
Associated Occupation: Civil Engineering Technicians (17-3022)

| Tools and Technologies                                  | Exclusivity |
|---|-------------|
| Audio and visual equipment                              | 4           |
| Computer data input devices                             | 2           |
| Computers   | 1           |
| Content authoring and editing software                  | 1           |
| Cutting and crimping and punching tools                 | 3           |
| Earth moving machinery                                  | 11          |
| Forming tools   | 2           |
| Humidity and moisture measuring instruments             | 15          |
| Indicating and recording instruments                    | 2           |
| Industry specific software                              | 1           |
| Information exchange software                           | 1           |
| Land surveying instruments                              | 19          |
| Length and thickness and distance measuring instruments | 2           |
| Masonry and concrete tools                              | 22          |
| Measuring and layout tools                              | 3           |
| Mechanical instruments                                  | 14          |
| Meteorological instruments                              | 16          |
| Personal communication devices                          | 2           |
| Safety apparel  | 4           |
| Temperature and heat measuring instruments              | 6           |
| Vision protection and accessories                       | 3           |

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.